

JIB-1571_SequenceListing_07-18-11_ST25.txt
SEQUENCE LISTING

<110> winter Sederoff, Heike
Huber, Steven C
Larabell, Carolyn A

<120> SYNTHETIC PEPTIDES THAT CAUSE F-ACTIN BUNDLING AND BLOCK ACTIN
DEPOLYMERIZATION

<130> JIB-1571

<140> 10/576,757
<141> 2006-04-20

<150> US 60/513,275
<151> 2003-10-20

<160> 30

<170> PatentIn version 3.5

<210> 1
<211> 15
<212> PRT
<213> Artificial

<220>
<223> synthetic consensus active Zea mays Sucrose Synthase (SuSy)
peptide

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Glu Asn Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp
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<400> 2

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Glu Asn Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp
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Glu His Gly Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp
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<210> 6
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<220>
 <223> synthetic peptide derived from Drosophila melanogaster Actin 3, 5, and 6 proteins and Homo sapiens alpha Actin protein

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Glu His Gly Ile Ile Thr Asn Trp Asp Asp Met Glu Lys Ile Trp
 1 5 10 15

<210> 7
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<220>
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Glu His Gly Ile Val Lys Asp Trp Asn Asp Met Glu Arg Ile Trp
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<210> 8
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<220>
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Lys

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Gly	Ile	Val	Arg	Lys	Trp	Ile	Ser	Arg	Phe	Glu	Val	Trp	Pro	Tyr	Leu
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Lys Lys

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<223> SS15 less active synthetic peptide

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<221> SITE

<222> (6)..(6)

<223> replaced Tryptophan residue with Alanines

<220>

<221> SITE

<222> (13)..(13)

<223> replaced Tryptophan residue with Alanine

<400> 13

Gly Ile Val Arg Lys Ala Ile Ser Arg Phe Glu Val Ala Pro Tyr Leu
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<223> SS16 less active synthetic peptide corresponding to short middle portion of SS12 synthetic peptide

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Ser Arg Phe Glu Val Trp Pro Tyr Leu
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<210> 15

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<220>

<223> NR11 inactive synthetic peptide

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Gly Pro Thr Leu Lys Arg Thr Ala Ser Thr Ala Phe Met Asn Thr Thr
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Ser Lys Lys

<210> 16
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Trp Ile Ser Arg Phe Glu Val Trp
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Arg Arg Ile Ser Ser Val Glu Asp Lys Lys
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Glu His Gly Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His
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His Thr Phe Tyr
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<210> 22
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synthetic peptide
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Ser Arg Phe Glu Val Trp
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<210> 23
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Trp Ile Ser Arg Phe Glu Val Trp Pro Tyr Leu Lys Lys
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Tyr Leu Lys Lys
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<210> 25
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 <223> X=His or Asn

<220>
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 <223> X= Val or Leu or Ile

<220>
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 <223> X= Arg or Thr or Lys

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 <223> X= Lys, Asn, Asp

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 <222> (9)..(9)
 <223> X= Ile or Asp or Asn

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 <222> (10)..(10)
 <223> X= Ser or Asp

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 <223> X= Arg or Met

<220>
 <221> VARIANT

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<222> (12)..(12)
<223> X= Glu, Phe, Cys, or Lys

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<222> (14)..(14)
<223> X= Ile, Leu, or Val

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<221> VARIANT
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<223> X= His or none

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<221> VARIANT
<222> (20)..(20)
<223> X= Tyr or none

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Glu Xaa Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Trp Xaa
1          5          10          15

Xaa Xaa Xaa Xaa
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<210> 26
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<220>
<223> Motif for a synthetic peptide which causes actin bundling and
inhibits actin depolymerization

<220>
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 <223> X = any amino acid

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 <222> (9)..(14)
 <223> X = any amino acid

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Glu	Xaa	Gly	Xaa	Xaa	Xaa	Xaa	Trp	Xaa	Xaa	Xaa	Xaa	Xaa	Trp
1			5				10						15

<210> 27
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 <212> PRT
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<220>
 <223> Motif for a synthetic peptide that causes actin bundling and inhibits actin depolymerization

<220>
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 <223> X= Lys, Arg, or His

<220>
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 <223> X= Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

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 <222> (14)..(14)
 <223> X= Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

<400> 27

Glu Xaa Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Trp
 1 5 10 15

<210> 28
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Formula (I) for active synthetic peptides

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 <223> X = Arg, Lys, Asn, or Thr

<220>
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 <222> (5)..(5)
 <223> X = Arg, Lys, Asn, or Asp

<220>
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 <223> X = Ile, Asp, Asn, or Glu

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 <223> X = Arg, Met, or Ala

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 <223> X = Phe, or Glu

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<220>
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 <222> (14)..(14)
 <223> X = Pro, or His

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 <223> X =Tyr, or His

<220>
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 <222> (16)..(16)
 <223> X =Leu, or Thr

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Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa
 1 5 10 15

<210> 29
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<220>
 <223> Formula (II) for synthetic active peptides

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 <223> X = any amino acid

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<220>
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 <222> (12)..(12)
 <223> X = Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

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Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Trp
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<220>
 <223> SS2 and SS12 subsequence necessary for peptide activity

<400> 30

Gly Ile Val Arg Trp Lys Ile
1 5